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ISLAMIC GROUP LENDING AND FINANCIAL INCLUSION

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Abstract

Based on measurements of several indicators including the level of community participation, community empowerment, repayment rate was good, cross reporting good, and the application of penalties in accordance with the applicable rules, the results show that with the program GLM people feel the difference in economic condition and social than before and after the program. This is a major discovery is valuable. The development strategy for the program GLM is divided into seven levels with the elements most important include: The need for equality of access to funds for all types of financial institutions, both banking and lending model-based group, the need to improve the quality of human resources as a pioneer of service models based lending group this, as well as the importance of financial inclusion in the entire financial system.

Keywords: Group Lending Model; Financial Inclusion; SEM; ISM; Islamic Empowerment

Abstrak.

Penelitian ini akan mencoba melihat bentuk model pinjaman berbasis kelompok (Group Lending Model) dan bagaimana dampaknya terhadap struktur sosial anggotanya. Penelitian ini juga mencoba memberikan solusi berupa analisis strategi awal pengembangan Islamic GLM agar lebih efektif dan efisien. Metode yang digunakan adalah Structural Equation Modeling (SEM) dan Interpretative Structural Modeling. Berdasarkan pengukuran beberapa indikator diantaranya adalah tingkat partisipasi masyarakat, pemberdayaan masyarakat, repayment rate yang baik, cross reporting yang baik, serta penerapan penalty sesuai dengan aturan yang berlaku, hasilnya menunjukkan bahwa dengan adanya program GLM masyarakat merasakan perbedaan baik dari kondisi ekonomi maupun sosial dari sebelum dan setelah mengikuti program. Ini menjadi temuan penting yang berharga. Adapun strategi pengembangan untuk program GLM ini terbagi menjadi 7 level dengan elemen-elemen terpentingnya antara lain: Perlunya kesetaraan akses dana untuk segala jenis institusi keuangan, baik perbankan maupun model pinjaman berbasis kelompok, Perlunya peningkatan kualitas sumber daya manusia sebagai pionir pelayanan model pinjaman berbasis kelompok ini, serta Pentingnya keuangan inklusif pada seluruh sistem keuangan.

Kata Kunci: Model Group Lending; Inklusi Keuangan; SEM; ISM; Pemberdayaan Islam

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INTRODUCTION

Discrepancy of poor people to access banking capital in Indonesia is greater. This is due to the poor have no collateral that qualified as required by the banks to obtain loans. Based on the survey that resulted by World Bank in 2010 as quoted in the Bank Indonesia journal (2011) that nearly half of the 234.2 million people in Indonesia do not have access to formal financial services. Of these, approximately 35 million people served non-formal financial institutions only such as credit unions and so forth. But there are about 40 million people who have not been touched for financial services in any form.

According to the World Bank data, Global Financial Inclusion Index in 2012 stated that access to financial services for people in Indonesia is still very low compared to other developed countries that range about 20%. This is not another caused also by a lack of public ability in obtaining bank loans in financial institutions. Basically, Indonesia is a country that has a lot of micro-enterprises. As quoted by the Antara News, Minister of Cooperatives, Small and Medium Enterprises, Syarifudin Hasan stated that Indonesia has about 52.1 million micro enterprises engaged in various sectors and has a potential to boost economic growth. Unfortunately, this kind of growth has not been supported with good access to capital as well. Given the financial institution is an institution of intermediation between parties who have excess capital with those who need funds. For that reason, financial inclusion is expected to be one of the mechanisms to reduce social inequalities and improve the welfare of poor people in Indonesia.

Bank of Indonesia stated that financial inclusion is an activity that is universal and has the goal to eliminate the obstacles of all kinds both price and non- price on public accessing to the financial services. Radyati (2012) described the financial inclusion is a situation where everyone has access to quality financial services affordable cost, not complicated, and honour the dignity.

Financial inclusion is realized by strengthening synergies between banks and non-bank financial institutions. As a financial institution, the Bank is a very wide-ranging. Therefore, the bank can be a stepping-stone for financial inclusion, especially in terms of capital procurement. Non-bank financial institutions in this regard microfinance institutions that have touched many of the poor as well as micro, small and medium

enterprises also need to be introduced. The most important factor is how to realize a micro-finance institutions, both formal and informal truly accessible to the public, especially people who have problems in terms of procurement guarantees. One formal microfinance institutions that have swept the world as the hottest issue in some countries is the practice of Grameen Bank in Bangladesh. A financial service system has also been widely applied in some countries one of them is Indonesia.

This study will try to see the shape of Group Lending Model with a sample of community fostered in Tazkia Microfinance Center (TMFC) Babakan Madang, Sentul and how it impacts the social structure members. The study will also confirm the most dominant factors in the group variable using the Structural Equation Model approach. Further more, the study also tried to provide a solution in the form of an initial strategy analysis GLM Islamic development for more effective and efficient.

There are some phrases that can be used to describe a group-lending model that was first developed by the Grameen Bank in Bangladesh. Some of the research literature paraphrases such as group lending, joint liability, social capital, which has the same meaning that individuals coming together and formed a group in order to obtain a loan. Group-based financing has also been widely practiced in developing countries. Lukman, et al (2008) described some of the financing model of microfinance institutions in some countries, for example, the Grameen Bank in Bangladesh and Banco Sol in Bolivia, FINCA and ROSCA in Africa, all of which apply the pattern groups with the loan guarantee mechanism group (joint liability).

Social capital is a resource that can be seen as an investment to acquire new resources. This was disclosed by Vipihindrartin (2008) for considering resource is something that can be used for consumption, saved, or invested. The significance of social capital is also quite extensive. If human capital is defined as using the expertise of an individual to be able producing something different with the social capital that exploit the potential contained within a social group of society and look at the relationship patterns among individuals within a group and between groups with the attention on social networks, norms, values, and mutual trust which appears from the group members.

The main function of the group lending model microfinance is its usefulness for social needs greater than the business aspect that emphasizes the security of the material. Loans given to small groups or companies (peer pressure), which can guarantee the repayment of the loan, can be achieved. In Bangladesh, women are the main target beneficiaries of this micro-credit program. This is because women are considered more sensitive and more reliable in terms of lending and borrowing (Schurmann and Johnston, 2009).

Aghion and Morduch (2005) stated that the Group Lending is one of the successful financing programs at the micro-financing level. The Group Lending participates concerned some aspects of the micro financing. In some micro-financing scheme, the loan repayment was made on a regular basis both in weekly, biweekly or even monthly. In this case the borrowers in the group and supervisors meet regularly, loan officers can obtain information from the borrower and can also share information related to the problems faced by borrowers of businesses that continue until a solution can be found together.

Kono (2007) conducted field research with a case study in Vietnam to describe the rules of the game from a group lending models. In this field study, it conducted some experiments related to monitoring, cross reporting, implementation of social sanctions on moral hazard, communication between individuals, and the formation of groups based on the behaviour of repayment by the borrower. The results of the case study indicated that the group lending contracts made causing serious problems include strategic failure and low rates of return.

Viphindartin (2012) tried to map out research into three different cultural base that is Matraman, Arek, and Madura to look at the relationship and influence on the effectiveness of a group lending social capital program. Social relations are reflected from each respective cultural group that form group base formation of social capital. With the interaction in the group are expected to stimulate an increase in repayment rate and effectiveness of the program. The results showed that the characteristics of the cultural and social capital in a particular community a positive influence on the beneficiary communities behaviour in making repayment of the loan and also reflects the absence of an effective poverty reduction program for the community.

METHOD

Causality study was designed with a quantitative approach to be implemented by using an expert survey in the process of data collection and analysis methodology using SEM (Structural Equation Model) to see the effect of the relationship between variables. The operational definition is a translation would be the definition of variables and indicators in this study. Similarly further operational definitions describe the measurement of variables and indicators developed in this study.

Data analyse method that used in this study was the Structural Equation Modelling (SEM). The use of SEM in analysing the research model is expected to identify the dimensions of a construct and at the same time will measure the degree of influence or relationship among the factors that have been identified dimensions (Ferdinand, 2006). Other benefit of the use of SEM is its ability to confirm the dimensions of a concept or factor as well as the ability to measure the influence of theoretical relationships.

In making modelling SEM needs to do the following steps such as development of theoretical models. The first step that must be done in developing models of SEM is to develop a research model with strong theoretical support through various literature reviews of scientific resources related to the models developed. The theoretical model is not based on trial and error, the development of theoretical model is based on what others people had done the research about the topic. Development flowchart (path diagram) is to show causality (cause and effect). The research model that has been built in the first phase will be illustrated in a diagram the path that will make it easier to see the relationships of causality to be tested. Exogenous construct known as the source variable or independent variable that is not predicted by other variables included in the model. Endogenous constructs, which are all factors that predicted by a single or multiple constructs. Endogenous constructs able to predict one or several other endogenous construct, but endogenous constructs can only be associated causally with endogenous constructs.

Table I. Variable and Indicator Operational Definitions

Variable	Operational Variable Definitions	Indicators	Operational Indicator Definitions
Culture Characteristic	Culture is one of the factors that can support the economic activities of society, especially in terms of building a program of group-based lending model (GLM). Good environment and culture will influence the behavior of the person / people in muamalah (Fukuyama, 2002). Given the GLM program is a group-based lending program which is a collection of individuals, thus to form a group of good borrowers need to know the character of each individual in the group. Characters can be formed by neighborhood (region) and culture.	X1 (Potential Group) X2 (Relationships between Individual Pattern) X3 (Cooperation) X4 (Value / Norma customs and religion) X5 (Relationships)	The fifth indicator is measured by looking at the expertise possessed by individuals in each group, a relationship of mutual trust, cooperation, discipline, collective responsibility, conditions of living environment, the role of indigenous and community leaders, in common area, profession, and so on.
Organization / Role of Government	Government or organization that houses GLM program also supports the implementation of the program GLM well.	Y1 (Government Policy) Y2 (Providers and Monitoring Facility) Y3 (Mentoring and Coaching) Y4 (Capital Assistance) Y5 (Program Socialization)	The fifth indicator is measured by looking at how the What is a GLM-related regulations are in accordance with the needs of society and the role of government, especially in terms of supervision and mentoring
GLM Program Effectiveness	Reflected in the conditions and behavior receiver group revolving fund with GLM program	Z1 (Public Participation) Z2 (Community Empowerment) Z3 (Good on Repayment rate) Z4 (Good Cross Reporting) Z5 (Penalty)	By looking how the community participation in the GLM program, as well as how different socio-economic conditions of receiving communities GLM program before the program and after the program. The rate of return has also become one of the benchmarks for assessing the success of GLM program.

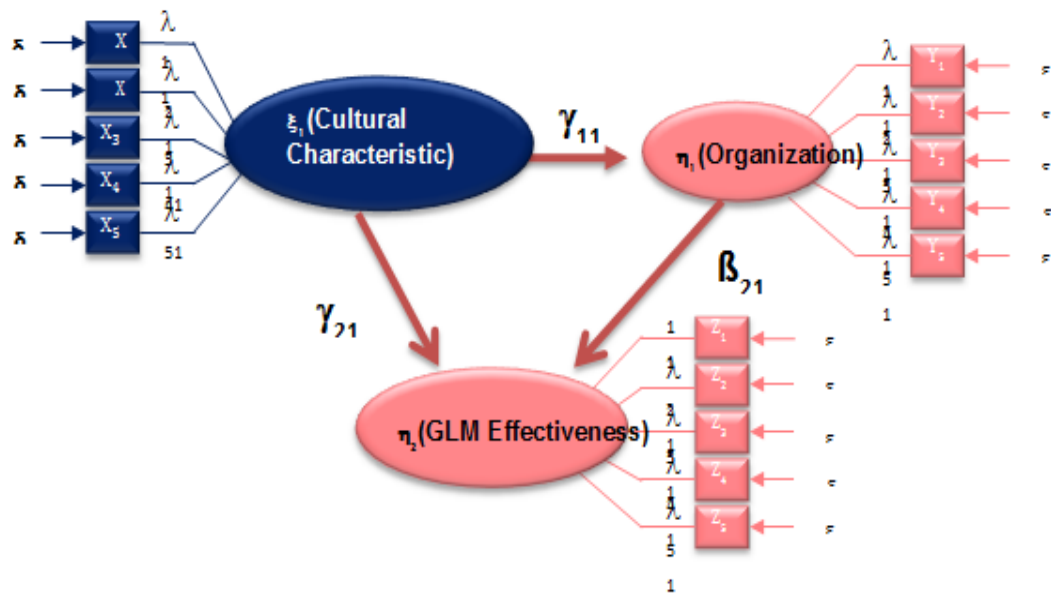


Figure 1. Detailed Measurement (Path Diagram)

1. Conversion flowchart into a series of structure and measurement equations model specifications.
2. Selection of input matrix and estimation techniques.

SEM used the input data correlation matrix for the overall estimation is done. Covariance matrix is used because it has the advantage of presenting a valid comparison between different populations or different samples and cannot be served by the correlation. (Hair et al., in Ferdinand, 2006) suggested that the number of corresponding sample in the range between 100 and 200 respondents whereas the minimum sample size is as much as 5 respondents per parameter estimation.

3. Assessing the problem of identification

Problem identification is basically a problem of the inability of models developed to produce unit estimation. One solution to this identification problem is to provide more constraint on the model being analysed and this means eliminating the amount of the coefficient estimated. It is therefore strongly recommended if each of estimation emerging problem identification, then the model should be reconsidered among others by developing more models of the construct.

4. Criteria evaluation for goodness of fit

In this stage testing against various criteria for goodness of fit after it was confirmed that the data meet the SEM assumptions.

The second step is the use of ISM. This method is a way in the decision of complex situations by linking and organizing ideas in a visual map folder. The basic idea is to use an experienced expert and practical knowledge to decipher a complicated system into several sub-systems (elements) and construct a multi-storey structural model. ISM is often used to provide a basic understanding of complex situations, and to develop measurement to solve the problem (Gorvett and Liu, 2007).

Prior discussion is to be done when implementing the ISM method with experts (brainstorming) to solicit ideas for developing the organization consisting of people who understand the concept of ISM, understand problems GLM model development, and has an expertise in the microfinance and empowerment field. From the discussion on the strategy development gained some ideas or variables to be processed using the ISM.

The first step in the processing of ISM is to make Structural Self Interaction Matrix (SSIM), where the relationship contextual variables created by making the variable *i* and variable *j*. Next, making reachability matrix (RM) by changing the V, A, X and O with the numbers 1 and 0. The last step is to make Canonical Matrix to determine the levels through iterations. Having no longer intersection then made models produced by ISM, which is a model for solving the problem, in the GLM model development case. From these model, then will be created a road map for the development of institutions (level).

DISCUSSION

Based on the statistical analysis results of data SEM and the field findings, it was revealed that the cultural characteristics of a particular community could influence people's behaviour in determining the effectiveness of a GLM program for the community. Conversely organizations factor or government have not been fully effective in supporting the implementation of good GLM program for the community.

After going through a series of tests on the SEM as well as through a phase of 'sorting' of indicators which have a factor loading value ≤ 3.00 (Wijanto, 2008), then the final model that built in this study had three latent variables i.e. latent variable X (cultural characteristics) which has three indicators observed, latent variable Y (organization / role of government) with 4 indicators observed and latent variables Z (effectiveness GLM program) with 5 indicators observed (for a complete explanation of the variables and indicators observed that used in SEM can be seen in methodology section).

In the early stage of model analysis, validity and reliability data obtained should be tested. The validity of the measurement model is done by looking at the t-value load factor. A variable is said to have good validity if it has t-value load factor greater than the critical value of 1.96 (Ridgon and Ferguson in Wijanto, 2008). The estimation results of t-value load factor first model can be seen in Figure 2 below:

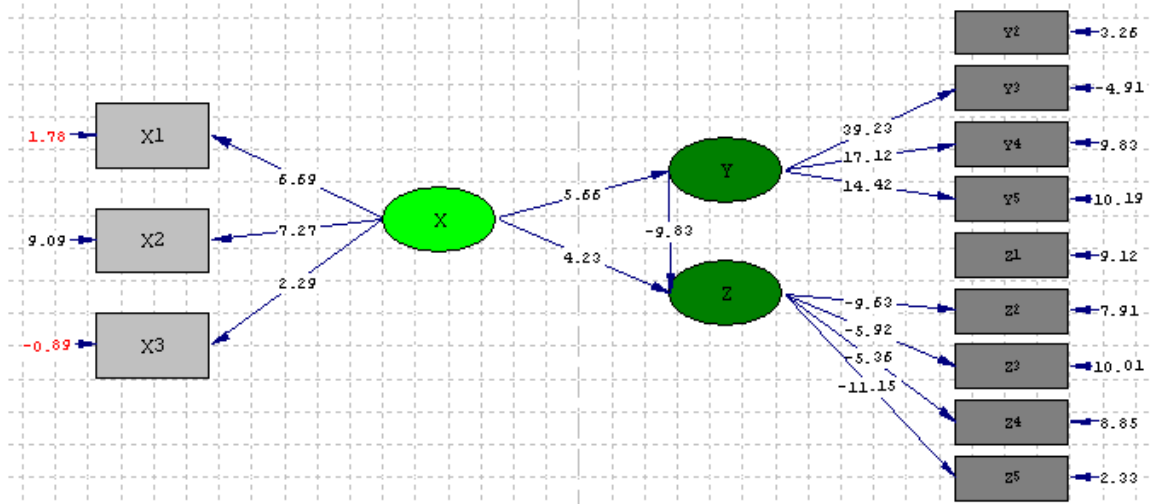


Figure 2. t-value

From figure 2, the path of GLM diagram model complete with figures that show the t-value of each number associated estimation. It is greater than 1.96 that indicates significance at the 5% level. Acquisition t-value shows that all indicators have good validity in explaining latent variable. This is because all the indicators have a t-value greater than the critical value of 1.96 while the reliability of model can be measured by a formula construct reliability (CR) and variance extracted (VE) based on the load factor and standard error track diagram that can be seen in the figure below 3 this:

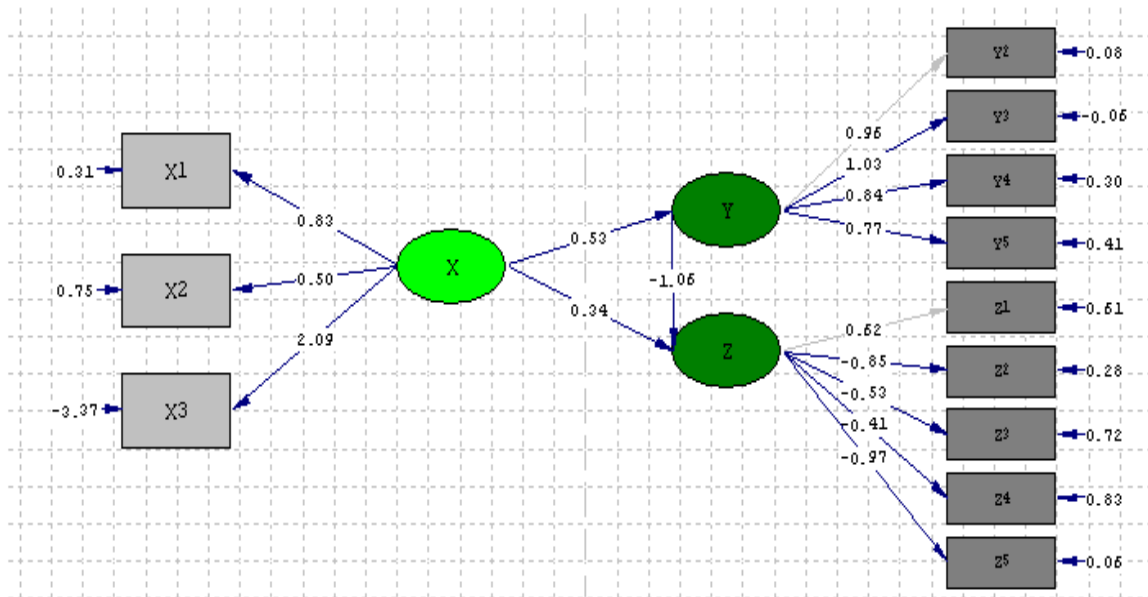


Figure 3. Standardized Solution

Based on the results of standard and error factor loadings in figure 3, it can be calculated that acquisition CR and VE value that describes the value of data constructs reliability. High reliability shows that indicators have a high consistency in measuring latent constructs (Wijanto, 2008). A summary of the validity calculation results of CR VE GLM performance models can be seen in Table 2 below:

Table2. List of Validity and Reliability GLM Model

Variable	Conclusion	
	Reliability	
	CR ≥ 0.7	VE ≥ 0.50
X	$1.25 \geq 0.7$	$1.77 \geq 0.50$
Y	$0.93 \geq 0.7$	$0.79 \geq 0.50$
Z	$0.70 \geq 0.7$	$0.50 \geq 0.50$

Reliability is a good model if $CR \geq 0.70$ and $VE \geq 0.50$. All CR and VR coefficient for latent variables X (cultural characteristics), Y (organization / role of government), and Z (the effectiveness of programs GLM) meet the requirements set, so it can be concluded that the indicators on the latent variable reliable with the ability to extract representing the constructs abovevalue required.

After determining the validity and reliability, the next step is to analyse the suitability model (goodness of fit) criteria. In identifying a model that can be said to be good and true, then do some analysis of the values contained in the model. A model can be said to be good and valid, if the match is absolute and incremental sizes that are summarized in the Table 3.

The model built in this analysis has a chi-square value of 132.60 with degree of freedom about 20 and p-value of 0.0000, which is less than 0.05. Normed chi-square value is between the lower and upper limit value of the 2.041 and the model is said to be a good fit. SNCP value can be compared to 1.74 for the next re-specification models. Another value that is generated in the goodness of fit criteria is the value of NFI, CFI, and IFI that showed ≥ 0.9 results above so it can be said to be a good fit, and therefore a model built in this study are considered good (Browne and Cudeck in Wijanto 2008).

Table 3. Parameters and Compatibility Test Results of Overall Model GLM

Size of GoF	Degree of Fit	Estimation Result	Degree of Fit
Chi-Square P	Small value $P \geq 0.05$	0.00000	Marginal fit
Normed chi-square	Lower limit (0.1) – Upper limit (0.5)	2.041	Good fit
SNCP	Smaller is better	1.74	-
NFI	$NFI \geq 0.90$	0.94	Good fit
NNFI	$NNFI \geq 0.90$	0.81	Marginal fit
CFI	$CFI \geq 0.90$	0.94	Good fit
IFI	$IFI \geq 0.90$	0.94	Good fit
GFI	$GFI \geq 0.90$	0.87	Marginal fit

Hypothesis Analysis

Overall SEM models based on figure 3 provides conclusive evidence of how the influence of the cultural characteristics to the organization / role of government, as well as the effect of cultural characteristics and organization / role of government performance variable. The third relationship of these variables can be seen in the Figure 4.

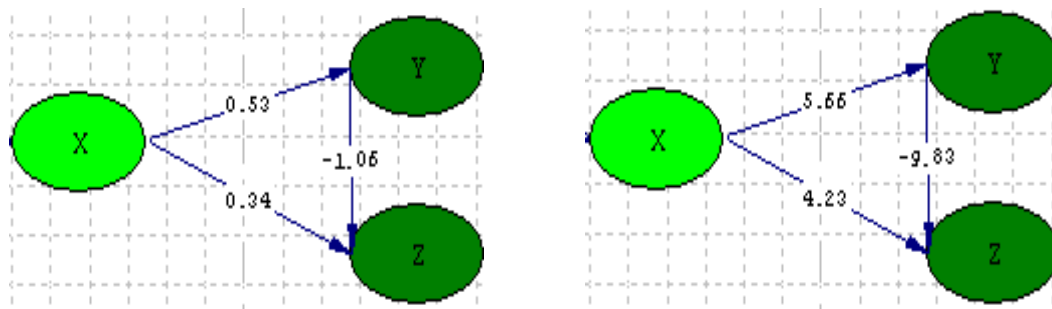


Figure 4. Standardized Solution Structural-Value Model and t-value

Based on the t-value acquisition results in figure 4, it shows that the latent variable X (cultural characteristics) has a positive significant effect on Y (organization / role of government) and the Z (GLM program effectiveness), which is reflected through people's behaviour while the variable Y (organization / role of government) has a negative significant effect on Z (GLM program effectiveness). The evaluation results of figure 3 can be summarized in the following table 3 accompanied by assuming the hypotheses of this research model.

Table 4. Evaluation of Structural Model Coefficient and Relation to Hypothesis

Hypothesis	Path	SLF \geq 0.30	t-value \geq 1.96	Conclusion
1	Cultural characteristics (X) \Rightarrow organization / role of government (Y)	0.53	5.66	Significant (the hypothesis is accepted)
2	Cultural characteristics (X) \Rightarrow effectiveness GLM program (Z)	0.34	4.23	Significant (the hypothesis is accepted)
3	Organization / role of government (Y) \Rightarrow effectiveness GLM program (Z)	-1.06	-9.83	Significant (the hypothesis is accepted)

Based on the evaluation results summary in Table 4, hypothesis can be seen that the relationship between culture characteristic variables and organizational role of government has a t-value of 5.66. This value is greater than 1.96 meaning that the

relationship is significant and has a positive coefficient that indicates a positive relationship between two variables. This shows that the influence of the cultural characteristics variables to the organization / role of government is stronger than the interval zero (very weak influence) up to a value of one (very strong influence).

Development Strategy

After analysing the impact of several variables in the SEM model, subsequent analysis is in the form of possible strategies review for the development GLM through interpretative structural model. This strategy is the result of depth interviews with experts who are competent. Furthermore, the structural model elements of interest results obtained as shown in the figure 5. There are at least seven levels of structural elements of the program objectives. The seventh level consists of a total from nine elements. The ninth of these elements are: (1) The need for equality of funds access for all types of financial institutions, both banking and group-based lending models (Fair Access Fund); (2) The need for increasing the quality of human resources as a pioneer of service-based lending model of this group (Improve Quality Human Resources); (3) The importance of financial inclusion in the entire financial system (Inclusion in Financial System); (4) Institutions such as APEX for group-based lending models (APEX Institution); (5) The rating system for the assessment and evaluation of GLM (GLM Rating System); (6) The importance of technical assistance for this group-based lending sustainability models (Technical Assistant); (7) Vital support from the government (Government Support); (8) The necessity of rules/laws to make a fair competition among managers of lending institutions, both formal and informal (Fair Competition Act); (9) The importance of economic stability both macro and micro (Economic Stability).

The lowest level is the need for equality of funds access for all types of financial institutions (Fair Access of Fund) to be foremost as a GLM program's objectives foothold. The next element is the quality of human resources, as a pioneer of service-based lending model becomes essential next group, followed by the need for financial inclusion in the financial system.

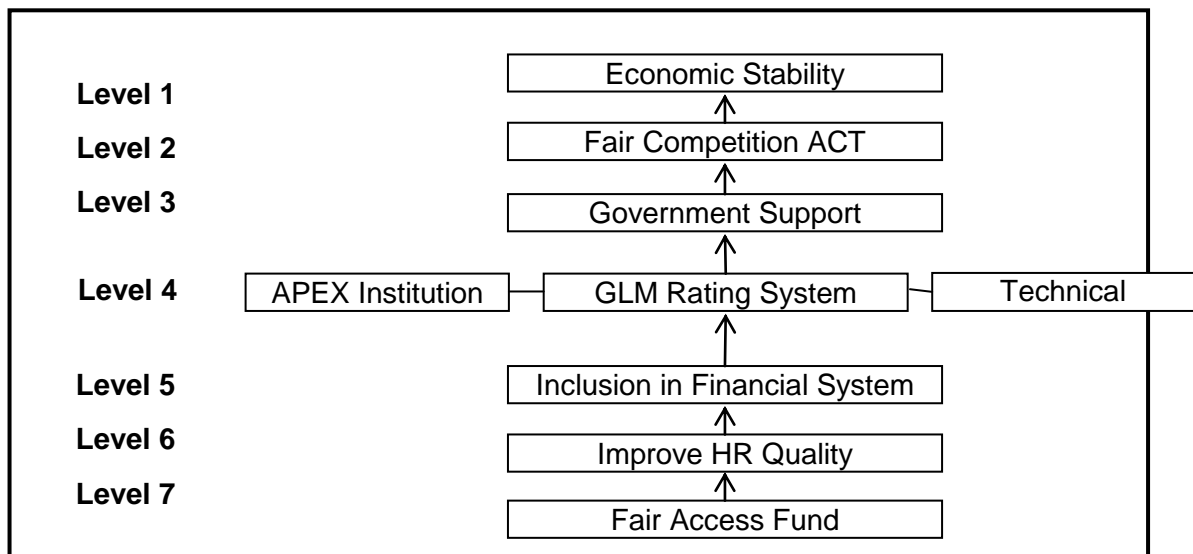


Figure 5. Objectives Program of Structural Model Element

Special at level 4 on it, there are three elements of the same relative importance in the development of GLM i.e. the need for an institution such as APEX, rating systems for evaluation and assessment as well as technical assistance for group-based lending sustainability model. The next element with dimensions lower interest is the support and commitment of the government, fair competition act and the economy stability. Nevertheless, these elements still have to be a strategy that needs to be done so that the result becomes more integral and comprehensive.

CONCLUSION

GLM program are built with the involvement of the community who have the geographical conditions and the same culture. The similarity of culture / customs regulations is considered for contributing factor in creating good conditions in terms of muamalah primarily associated with borrowing. Cultural factors measured using indicators of the potential group, the pattern of relationships among people, teamwork, values / norms customs and religion, and the relationship that each indicator has measurement aspects of its own, such as indicators of the relationships pattern among individuals are measured with an aspect know each other, trust, and the similarity of daily activities. Cultural characteristics conditions of a good society will contribute to the government's stance and concern in supporting / pushing GLM program that developed well.

Field findings found that group receiving GLM program members has a good cooperative relationship. This is evidenced by their regular hold monthly meetings as well as attending events held related to GLM program. In addition, they also have discipline and problem solving pretty well where the problems occurred during the program solved by finding a solution by way of deliberation to reach a consensus. Good society conditions would also increase the confidence and spirit of the government to continue supporting the GLM program to run properly and to facilitate through the capital and regulatory / policy.

Cultural characteristic is also a positive influence on the effectiveness of GLM program reflected through attitudes and behaviour. The attitude of society is measured by several indicators, including the level of community participation, community empowerment, good repayment rate, good cross reporting, and the application of penalties in accordance with the applicable rules while the role of governments / organizations negatively affect the effectiveness of GLM program.

The result indicated that the public acceptance of capital assistance GLM program to feel fully the role of government for this program yet, especially in terms of facilities and capital. In fact, facilities and capital are a key aspect of the GLM program well. At the same society has not fully familiar with the system of this GLM program, this could be due to the lack of socialization conducted by the relevant government GLM program.

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